Applicants: John C. Batterton et al. Attorney's Docket No.: 09991-151001

Serial No. : 10/749,833

Filed : December 30, 2003

Page : 2 of 10

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

(Currently amended) A drop ejector, comprising:

a flow path in which fluid is pressurized to eject drops from a nozzle opening formed in a substantially planar substrate and lying in a plane defined by a surface of the substrate, and;

a channel formed in the substrate proximate the nozzle opening for drawing fluid into the space defined by the channel, a portion of the channel being below the plane defined by the surface of the substrate; and

at least one radial channel.

- (Original) The drop ejector of claim 1 wherein the nozzle opening is surrounded by the channel.
- (Original) The drop ejector of claim 2 wherein the channel is in the shape of a circle.
- (Cancelled)
- (Original) The drop ejector of claim 1 wherein the channel has a width that is about twice the nozzle opening width or less.
- (Original) The drop ejector of claim 1 wherein the channel has a width of about 100 microns or less.
- (Previously Presented) The drop ejector of claim 1 wherein a depth of the channel is from about 2 microns to about 50 microns.

Attorney's Docket No.: 09991-151001

Applicants: John C. Batterton et al. Serial No.: 10/749,833

Filed : December 30, 2003

Page : 3 of 10

8. (Original) The drop ejector of claim 1 wherein the substrate is a silicon material.

(Original) The drop ejector of claim 1 wherein the planar substrate includes a plurality of
nozzle openings and channels proximate the nozzle openings.

 (Previously Presented) The drop ejector of claim 1 wherein the nozzle opening width is about 200 microns or less.

- 11. (Original) The drop ejector of claim 1 including a piezoelectric actuator.
- (Currently amended) A method of fluid ejection, comprising:
 ejecting a drop through a nozzle opening formed in a substrate and lying in a plane
 defined by a surface of the substrate;

positioning a channel in the substrate proximate the nozzle opening for drawing fluid into the space defined by the channel, a portion of the channel being below the plane defined by the surface of the substrate.

positioning at least one radial channel in the substrate; and providing a fluid that is drawn into the space defined by said channel.

- (Original) The method of claim 12 wherein the fluid has a surface tension of about 20-50 dynes/cm.
- 14. (Original) The method of claim 12 wherein the fluid has a viscosity of about 1 to 40 centipoise.
- 15. (Previously Presented) The drop ejector of claim 1 wherein the channel is spaced from the nozzle opening by a distance of about 20% of a nozzle width or more.

Applicants: John C. Batterton et al. Attorney's Docket No.: 09991-151001

Serial No.: 10/749,833 Filed: December 30, 2003

Page : 4 of 10

16. (Cancelled)

 (Currently Amended) The drop ejector of claim 16 1 further comprising a vacuum source in communication with the radial channel.

- (Currently Amended) The drop ejector of claim 46 1 further comprising a wicking material in communication with the radial channel.
- (Previously Presented) The drop ejector of claim 1 wherein fluid is drawn into the space defined by the channel during jetting.
- 19. (Previously Presented) The method of claim 12 wherein the channel is spaced from the nozzle opening by a distance of about 20% of a nozzle width or more.
- 21. (Cancelled)
- (Currently Amended) The method of claim 21 12 further comprising providing a vacuum source in communication the radial channel.
- 23. (Currently Amended) The method of claim 21 12 further comprising providing a wicking material in communication with the radial channel.
- 24. (Previously Presented) The method of claim 12 wherein the fluid is drawn into the channel by capillary forces.
- 25. (Previously Presented) The method of claim 12 wherein the fluid is drawn into the channel by gravity.

Applicants: John C. Batterton et al. Attorney's Docket No.: 09991-151001

Serial No.: 10/749,833 Filed: December 30, 2003

Page : 5 of 10

26. (Previously Presented) The method of claim 12 wherein fluid is drawn into the space defined by the channel during jetting.